

Article 8

Landscaping Standards



Article Eight: Landscaping Standards		Page #
8.1	Landscaping Standards	8-2
8.2	Buffering Standards	8-10

Amendments:

Article 8 revised through City of Columbus Ord. #6-2009, effective 2.17.09, and Bartholomew County Ord. #3-2009, effective 3.9.09



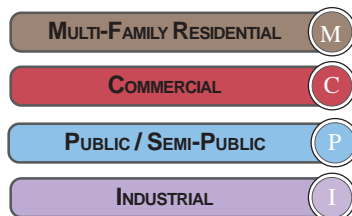
Intent:

This Chapter provides standards for the landscaping and screening of certain activities in order to protect the character of the surrounding area, stabilize soils, control wind-blown dust and debris, provide a variety of living plant material around buildings, shield adjacent properties and streets from light and glare, break up large expanses of paved areas, and to reduce energy consumption by using plant material for shade and windbreaks.

8.1 Landscaping Standards

General Landscaping Standards

These General Landscaping Standards apply to the Multi-family, Commercial, Public/Semi-Public, and Industrial zoning districts.



A. **Exemptions:** The following circumstances shall be exempt from the requirements of this Chapter:

1. Downtown Center District: Properties located within the CD Downtown Center zoning district shall be exempt from the Front Setback Area and Lot Interior Area requirements. However, if a front, side or rear yard is provided on a property within the CD zoning district, the landscaping requirements for the applicable areas shall be met.
2. Airports and Fairgrounds: Airports and fairgrounds shall be exempt from the requirements of this Chapter.

B. **Points Required:** Landscaping shall be provided in each area as determined by a minimum number of points or a specified planting requirement, as described in this Chapter. Whenever computation of points results in a fractional number, results of less than 0.5 shall be rounded down to the nearest whole number, while results of 0.5 and above shall be rounded up to the nearest whole number.

C. **Required Landscaping Areas:** Landscaping shall be required in the following 5 areas. All landscaping shall meet the minimum size at planting requirements in the Landscaping Points Requirements Table (Table 8.1) on Page 8-4.

1. Area #1 - Parking Lot Public Street Frontage: The required front setback areas for all parking areas, including parking spaces, interior drives, and loading/unloading areas, shall be landscaped. The required front setback area shall be planted with either one or a combination of the following options. Plant material is intended to be distributed across the frontage, but is not required to be installed in 50 foot increments.

8.1 Landscaping Standards (cont.)

General Landscaping Standards

- a. *Plantings Only:* For every 50 linear feet of frontage a minimum of 1 large tree or 1.25 medium trees, plus 7.5 ornamental trees or shrubs shall be provided; or
 - b. *Berm & Plantings:* A landscaped berm that is a minimum of 3 feet in height shall be provided. A minimum of 1 large tree or 1.25 medium trees, plus 2.5 ornamental trees or shrubs shall be provided for every 50 linear feet of berm provided. The ornamental trees and/or shrubs shall be located on the berm.
2. Area #2 - Parking Lot Interior: Interior landscape areas must be provided within parking lots containing 25 spaces or more:
 - a. Landscaped islands and peninsulas with a surface area equal to 5% of the area of the paved surface (including all parking spaces and related drive aisles and access drives, but excluding loading docks, service areas, and related drive aisles and access drives) shall be provided in all parking lots.
 - b. All required landscaped islands must be a minimum of 300 square feet in area, and all landscaped peninsulas shall be a minimum of 150 square feet in area.
 - c. A minimum of 1 large or medium tree, and 6 shrubs shall be provided in the parking lot interior for every 300 square feet of landscaped area required.
3. Area #3 - Front Setback: Any portion of a front yard setback which is not also a parking lot frontage shall be landscaped in accordance with the Landscaping Points Requirements Table, based on the linear footage of lot frontage along the adjacent street(s) or road(s).
4. Area #4 - Lot Interior: Required landscaping shall be determined by achieving a minimum number of points, as provided in the Landscaping Points Requirements Table based on the linear footage of the building perimeter.
 - a. *Accessory Buildings Excluded:* Points shall be calculated for the primary structure(s). The calculation shall not include any accessory structures.
 - b. *Foundation Plantings:* A minimum percentage of the required Lot Interior area landscaping shall be located within 15 feet of the primary structure(s), as listed below. The remaining percentage of required landscaping shall be distributed to other portions of the property.
 - i. Multi-Family Districts: 30%
 - ii. Public/Semi-Public and Commercial Districts: 25%
 - iii. Industrial Districts: 15%



See Also:

*Section 7.2 (Part 4)(B)(1),
Parking Area Front Setback
Requirements*



8.1 Landscaping Standards (cont.)

General Landscaping Standards

Landscaping Points Requirements Table (Table 8.1)

Required Points		
Zoning District Type	Front Setback Area: Multiplier (Multiplier x linear feet of lot frontage = minimum required points)	Lot Interior Area: Multiplier (Multiplier x linear feet of outer wall perimeter = minimum required points)
Multi-family	0.6	0.25
Commercial	0.6	0.25
Public/Semi-Public	0.6	0.25
Industrial	0.4	0.15

Landscaping Point Values			
Material	Type	Minimum Size at Planting*	Points (each)
Trees	Large Deciduous Tree (maturity > 40' tall)	2½ inches diameter, measured 4.5 ft. from the top of the root ball	25
	Medium Deciduous Tree (maturity 26' - 40' tall)	2½ inches diameter, measured 4.5 ft. from the top of the root ball	15
	Small Deciduous Tree (maturity 13' - 25' tall)	2½ inches diameter, measured 4.5 ft. from the top of the root ball	10
	Large Evergreen Tree (maturity > 40' tall)	5 ft. in height, measured from the top of the root ball	25
	Medium Evergreen Tree (maturity 26' - 40' tall)	5 ft. in height, measured from the top of the root ball	15
	Ornamental	6 ft. in height, measured from the top of the root ball	10
Shrubs	Evergreen	18 inches in height, measured from ground level	7.5
	Deciduous		7.5

* All multi-stem trees shall be a minimum of 6 feet in height, measured from the top of the root ball

8.1 Landscaping Standards (cont.)

General Landscaping Standards

5. Area #5 - Freestanding Signs Exceeding 6 Feet: All permanent freestanding signs exceeding 6 feet in height shall have landscaping planted in an area radiating a minimum of 5 feet from the base of the sign. This landscaping shall not count toward the total minimum landscaping points required for the landscaping area within which the sign is located.
 - a. Required Points: The landscaping shall earn at least 40 points as calculated pursuant to the Landscaping Points Requirements Table, by making use of the following plant material:
 - i. small deciduous trees.
 - ii. medium evergreen trees.
 - iii. ornamental trees.
 - iv. deciduous and evergreen shrubs.
 - b. Remaining Area: The remaining landscaped area shall consist of annual and perennial flowers and groundcovers, planted to accent the trees and shrubs.

D. Planting & Design Requirements: The following requirements shall apply to all required landscaping areas:

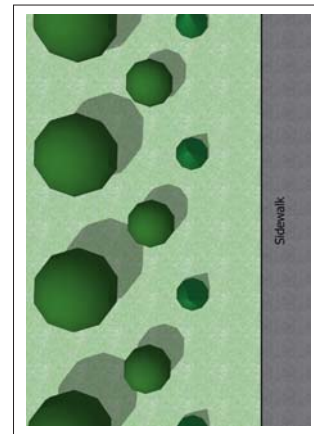
1. Landscape Design: Plantings may be clustered or staggered for variety and a natural appearance, or may be spaced in equal increments for a more formal appearance.
2. Ground Cover Required: Landscaped areas shall have appropriate ground cover which stabilizes soil, reduces solar heat gain, and permits infiltration. All areas not landscaped with hedges or trees shall be provided with grass or other vegetative ground cover.
 - a. Stone Prohibited: Gravel, limestone, river rock or similar stone materials may only be used for mulching around plants or for landscaping accents. Stone materials shall not be used as the primary ground cover in any required landscaped area.
 - b. Erosion Control: When necessary to meet erosion control requirements, materials other than living ground cover may be used.
3. Berms: Berms shall meet the following requirements:
 - a. Slope: The maximum permitted slope of berms is 1:3 (1 foot of height for every 3 feet of berm width).
 - b. Erosion Control: Berms shall be constructed with adequate ground cover to prevent erosion.
 - c. Topographical Changes: A difference in elevation between development areas shall not be considered a berm.
4. Quality: Plant material and ground covers shall be hardy, free of insects and diseases. All plants shall comply with the most recent edition of the American Standards for Nursery Stock ANSI 260.1, as approved by the American National Standards Institute.



Landscape Design Examples:

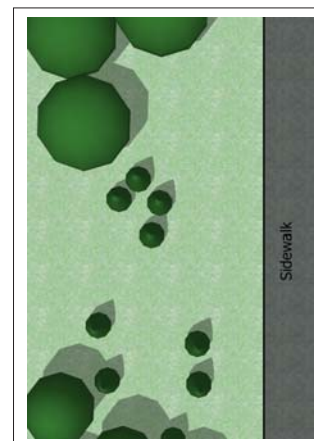
Formal

(Figure 8.1)



Natural

(Figure 8.2)





8.1 Landscaping Standards (cont.)

General Landscaping Standards

Non-Qualifying Plants Table (Table 8.2)

Trees		
Common Name	Scientific Name	Negative Feature(s)
American Elm (1)	Ulmus americana	Insects, disease
	(1) Disease resistant varieties of American Elm are acceptable.	
Ash	Fraxinus	Insects
Austrian (Black) Pine	pinus nigra	Disease prone
Autumn Olive	Elaeagnus umbellata	Poor form, disease prone, invasive
Black Locust	Robinia pseudoacacia	Invasive
Boxelder	Acer negundo	Aggressive shallow roots, weak wood
Bradford Pear	Pyrus calleryana 'Bradford'	Weak branching, low branches
Cottonwood	Populus deltoides	Weak wood, shallow roots, seeds
European White Birch	Betula pendula	Insect prone
Ginkgo (Female)	Ginkgo biloba – Female	Fruits, odors
Lombardy Poplar	Populus nigra 'Italica'	Insects, disease, short-lived
Mimosa	Albizia julibrissin	Invasive
Mulberry	Morus species	Fruits, shallow roots, invasive
Norway Maple	Acer platanoides	Invasive
Princess Tree	Paulownia tomentosa	Invasive
Russian Olive	Elaeagnus angustifolia	Poor form, disease prone, invasive
Siberian Elm	Ulmus pumila	Weak wood, seeds, shallow roots
Silver Maple	Acer saccharinum	Aggressive shallow roots, weak wood
Tree of Heaven	Ailanthus altissima	Seeds, suckers, weak wood, invasive
White Poplar	Populus alba	Suckers, shallow roots, weak wood, invasive
Willow	Salix species	Weak wood, shallow roots

Shrubs		
Common Name	Scientific Name	Negative Feature(s)
Bicolor Lespedeza	Lespedeza bicolor	Invasive
Black Alder	Alnus glutinosa	Invasive
Buckthorn	Rhamnus cathartica, R. frangula	Invasive
Bush Honeysuckles (Amur, Morrow, Tartarian)	Lonicera maackii, L. tatarica, L. morrowii	Invasive
Privet	Ligustrum	Invasive
Multiflora Rose	Rosa multiflora	Invasive
Winged Burning Bush (2)	Euonymus alatus	Invasive
	(2) Less invasive varieties such as "compactus" and "Rudy Haag" are acceptable.	

"An invasive plant is defined as a plant that is not native and has negative effects on our economy, environment, or human health... The term 'invasive' is reserved for the most aggressive plant species that grow and reproduce rapidly, causing major changes to the areas where they become established."

Source: The Midwest Invasive Plants Network

8.1 Landscaping Standards (cont.)

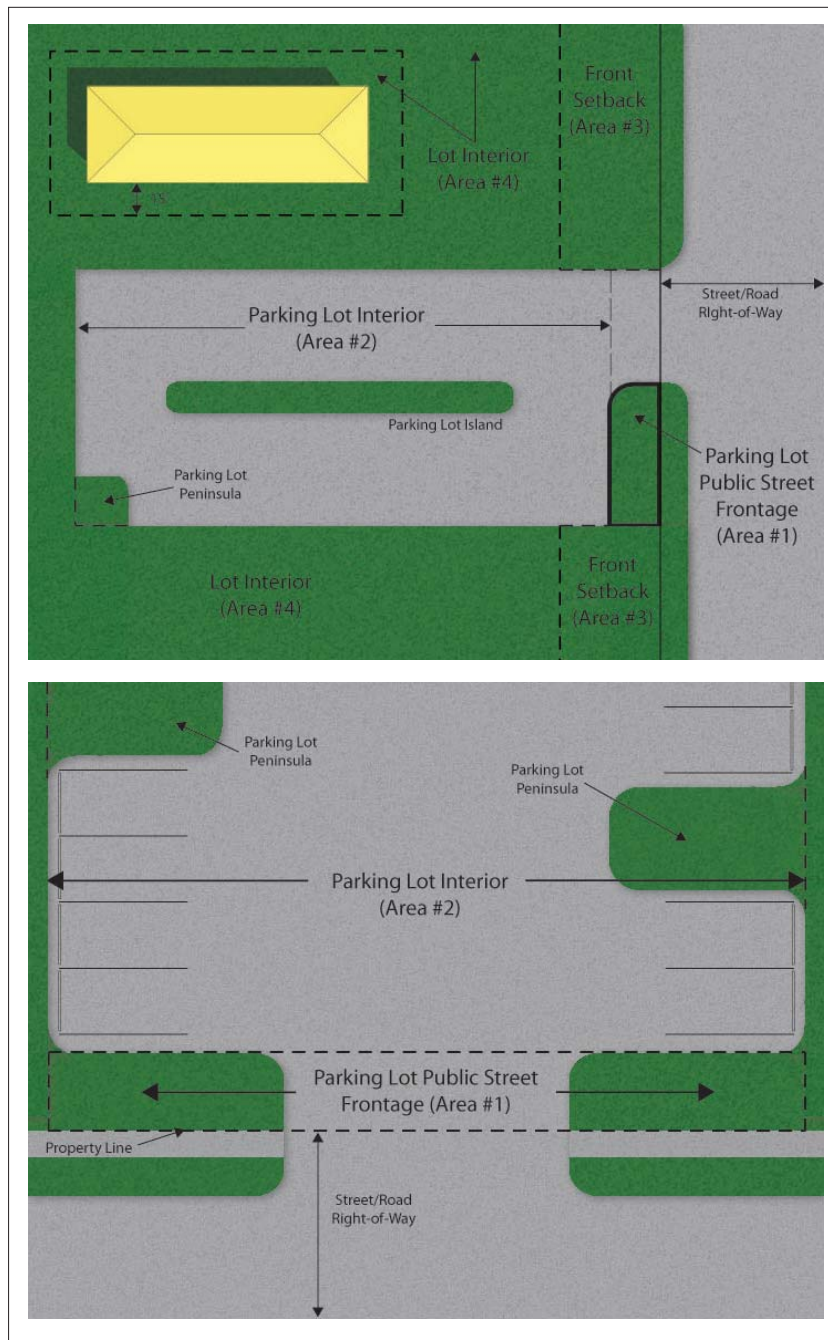
General Landscaping Standards



8

Landscaping Standards

Required Landscaping Areas Illustration (Figure 8.3)





See Also:

*Section 7.3 (Part 1)(D)(5),
Intersection Sight Visibility*

*Note: The Non-Qualifying
Plants Table is on page 8-6*

8.1 Landscaping Standards (cont.)

General Landscaping Standards

5. Living Material: The use of artificial plant material is prohibited.
 6. Sight Visibility: Landscape materials shall not obstruct sight visibility at maturity, in accordance with the requirements of Section 7.3 (Part 1)(D)(5).
 7. Traffic Control Signs and Lighting Features: Landscaping materials should be placed to avoid interference with traffic control signs and devices and lighting as the landscaping matures.
 8. Existing Trees and Shrubs: Existing trees and shrubs may be counted towards fulfilling the planting requirements, on the same basis as new plant materials.
 - a. *Shown on Landscape Plan*: Existing trees and shrubs to be protected shall be clearly labeled on the site plan.
 - b. *Protection During Construction*: No construction activity of any kind shall take place within the area defined by the drip-line of any existing tree that is to be protected. Protective measures shall be taken to ensure that heavy equipment and construction operations do not damage protected trees (e.g. snow fence around the drip line of the tree).
 - c. *Replacement*: Existing trees and/or shrubs to be preserved that die or are destroyed shall be replaced with new landscaping meeting the requirements of this Chapter.
 9. Non-Qualifying Plant Material: Species listed in the Non-Qualifying Plants Table (Table 8.2) may not be used to meet the requirements of this Article.
 10. Diversity: A mixture of plant species is encouraged as a protective measure against infestation causing mass die-off of plant material.
- E. **Installation**: The installation of all landscaping required by this Ordinance shall comply with the following:
1. Compliance: No permanent certificate of occupancy for any structure or parcel of land shall be issued unless the landscaping complies with the provisions of this Chapter.
 2. Delayed Installation: In the event that landscape installation is delayed because of seasonal changes, some or all required landscaping may be delayed for a period not to exceed 9 months, provided that a performance guarantee in the form of an irrevocable letter of credit or performance bond is posted with the City or County. The performance guarantee shall be equal to 125% of the cost of the materials and installation and shall be accompanied by a written assurance that such landscaping will be completed within the specified time period.

8.1 Landscaping Standards (cont.)

General Landscaping Standards

- F. **Landscaping Maintenance:** Light, water, soil conditions, and on-going maintenance requirements should be considered in selecting plant materials.
1. **Continual Maintenance:** The owner of the property shall be responsible for the continuous proper maintenance of all required landscaping materials, and shall keep them free from refuse and debris and in a healthy, growing condition at all times.
 2. **Pruning:** Landscape materials are intended to grow, spread and mature over time. Landscaping materials used to fulfill requirements of this Chapter may not be removed, pruned, or otherwise treated so as to reduce overall height or level of opacity. Excessive pruning, including limbing-up, topping, and other inhibiting measures, may only be practiced to insure the public safety or to preserve the relative health of the material involved. Pruning that results in removal of more than 1/3 of the height of the tree at the time of pruning shall be considered the same as removal; the pruned tree shall be removed and a new tree, meeting the requirements of this Chapter, shall be planted in its place.
 3. **Unhealthy, Dying or Dead Plant Material:** Required plant material that is unhealthy, dying or dead shall be replaced within 3 months of discovery of its condition, or if discovered at the end of the planting season, by June 30 of the next year for spring planting and October 30 for fall planting.
- G. **Other Provisions:** In no case shall any landscaping required by this Chapter be used to meet the requirements of another Ordinance provision. The landscaping required by this Chapter shall be in addition to any other requirements found in this Ordinance.





Intent:

This Chapter provides standards for buffers between different intensities of zoning and land use to provide transitions from one type of use to another and to buffer residents and users of less intensive land uses from the impacts associated with more intensive uses.

8.2 Buffering Standards

General Buffering Standards

These Buffering Standards apply to all zoning districts.

A. **Buffer Yard Required:** Whenever a property in a more intensive zoning district is adjacent to land in a less intensive zoning district, the type of buffer yard indicated on the Required Buffer Types Table for the appropriate jurisdiction (see pages 8-12 and 8-13) shall be provided upon the property within the more intensive district. The required buffer shall be installed on each individual lot as each is developed.

1. **Landscaping Requirements:** When required, buffer yard landscaping shall be in addition to the requirements of Chapter 8.1, Landscaping Standards.
2. **Rezoning:** Whenever a rezoning occurs that requires a buffer yard where none was required previously, the property that is rezoned shall provide the buffer yard. The buffer yard shall be installed as an element of any subsequent change of use.
3. **Buffer Areas:** Where buffer areas are required, they shall apply along the property lines and be provided entirely on the subject property. Required buffers shall be installed despite the presence of alleys or natural features (e.g., streams) separating property lines in conflicting zoning districts. No buffer shall be required where a street or road separates zoning districts.

B. **Buffer Yard Planting Requirements:** All plants used to fulfill buffer requirements must meet the minimum size standards indicated on the Landscaping Points Requirements Table (Table 8.1), and must meet the standards set forth in the most recent edition of American Standard for Nursery Stock published by the American National Standards Institute. Plants listed in the Non-Qualifying Plants Table (Table 8.2) may not be used to meet the requirements of this Chapter.

AGRICULTURAL	A
SINGLE-FAMILY RESIDENTIAL	S
MULTI-FAMILY RESIDENTIAL	M
COMMERCIAL	C
PUBLIC / SEMI-PUBLIC	P
INDUSTRIAL	I

Note: The Non-Qualifying Plants Table is found on page 8-6.

8.2 Buffering Standards (cont.)

General Buffering Standards

C. **Buffer Yard Type A:** Buffer Yard Type A shall include a minimum width of 25 feet in addition to the minimum setback required by this Ordinance. Buffer Yard Type A shall be a dense buffer consisting of a fence or wall with landscaping, an opaque tree screen, or a combination of both, as described below:

1. **Fence or Wall:** A fence or wall with a minimum height of 6 feet may be utilized as follows:
 - a. *Landscaping Along Fences:* At least 50% of the length of the fence or wall within the buffer shall be landscaped on the outside of the fence or wall. The maximum length of any continuous fence or wall segment without landscaping shall be 50 feet. Landscaping placed to meet this requirement shall be located within 15 feet of the fence or wall.
 - b. *Plantings Required:* The landscaping provided within the buffer shall be derived by multiplying the length of the buffer times 1.0 to determine the required points value. The required points value shall be met by providing landscaping consistent with the Landscaping Points Requirements Table (Table 8.1). At least 50% of the required points must be met with evergreen trees and/or shrubs.
 - c. *Fence Construction:* The fence shall be completely opaque and be constructed of wood or masonry, or of composite materials such as vinyl, provided that the materials used create an opaque screen are of solid construction and can be maintained. Metal fences (i.e., chain link with opaque inserts) are prohibited. The fence shall be constructed so that the non-structural side faces outward.
2. **Opaque Tree Screen:** Evergreen trees planted to achieve a dense screen may be utilized as follows:
 - a. *Columnar Varieties:* Columnar evergreen varieties (such as arbor vitae) shall be planted in 2 staggered rows and spaced 3 to 4 feet from each other, on center. Columnar varieties shall be a minimum of 5 feet high at planting.
 - b. *Conical Varieties:* Conical evergreen varieties (such as White Pine or Spruce) shall be planted in 2 staggered rows and spaced 8 to 10 feet apart, on center. Conical varieties shall be a minimum of 5 feet high at planting.
3. **Berms:** A berm shall be permitted within the buffer, subject to the requirements of Section 8.2(F).
4. **Maintenance:** The fence, wall or planting screen shall be placed within the buffer to allow access to all sides so that the screen may be properly maintained without needing to enter upon adjacent property. Gates and openings shall be provided where necessary to accommodate access for maintenance purposes.



See Also,

Article 3, Zoning Districts





8.2 Buffering Standards (cont.)

General Buffering Standards

- D. **Buffer Yard Type B:** Buffer Yard Type B shall include a minimum width of 15 feet in addition to the minimum setback otherwise required by this Ordinance; and shall meet the following requirements:
1. **Landscaping Required:** A minimum of 65 landscaping points shall be provided within every 50 linear feet of buffer yard required. Any buffer yard segment of less than 50 feet shall be provided with plant material equal to 1.3 points for every linear foot of that segment. The required points value shall be met by providing landscaping consistent with the Landscaping Points Requirements Table (Table 8.1). At least 50% of the required points must be met with evergreen trees and shrubs.
 2. **Landscaping Placement:** The required landscaping for Buffer Yard Type B may be located within the additional 15-foot setback or anywhere within the adjacent required setback.

Required Buffer Types Table (Table 8.3)

City of Columbus Jurisdiction (buffer required where indicated)

Zoning of Adjacent Property		Zoning of the Subject Property																				
		Intensity 																				
		AV	AP	AG	RR	RS-1	RS-2	RS-3	RS-4	RE	RT	RM	RMH	CD	CN	CO	CC	CR	P	I-1	I-2	I-3
Intensity 	AV																					
	AP																					
	AG														B	B	A	A	B	A	A	A
	RR											B	B		B	B	A	A	B	A	A	A
	RS-1											B	B		B	B	A	A	B	A	A	A
	RS-2											B	B		B	B	A	A	B	A	A	A
	RS-3											B	B		B	B	A	A	B	A	A	A
	RS-4											B	B		B	B	A	A	B	A	A	A
	RE											B	B		B	B	A	A	B	A	A	A
	RT											C	B		B	B	A	A	B	A	A	A
	RM												C		C	B	A	A	B	A	A	A
	RMH											C			C	B	A	A	B	A	A	A
	CD																			A	A	A
	CN																C	C		A	A	A
	CO																C	C		A	A	A
	CC																			A	A	A
	CR																			B	B	A
	P																B	B		A	A	A
	I-1																					B
	I-2																					C
	I-3																					

8.2 Buffering Standards (cont.)



General Buffering Standards

3. **Berms:** A berm shall be permitted within the buffer, subject to the requirements of Section 8.2(F), below.
 4. **Fences and Walls:** Decorative fences or walls shall be permitted within a Type B buffer, subject to the construction requirements of Section 8.2(C)(1)(c), above; however, no fence or wall shall be counted towards meeting the buffer requirement. If utilized, fences or walls shall meet the maintenance requirements of Section 8.2(C)(4).
- E. **Buffer Yard Type C:** Buffer Yard Type C shall include a minimum width of 15 feet in addition to the setback otherwise required by this Ordinance. Buffers adjacent to Agricultural zoning districts shall include a minimum setback of 20 feet in addition to the setback otherwise required by this Ordinance.



Required Buffer Types Table (Table 8.4)

Bartholomew County Jurisdiction (buffer required where indicated)

Zoning of Adjacent Property		Zoning of the Subject Property																				
		Intensity 																				
		AV	AP	AG	RR	RS-1	RS-2	RS-3	RS-4	RE	RT	RM	RMH	CD	CN	CO	CC	CR	P	I-1	I-2	I-3
Intensity 	AV			C	C	C	C	C	C		C	C	C		C	C	C	C	C	C	C	C
	AP			C	C	C	C	C	C		C	C	C		C	C	C	C	C	C	C	C
	AG											B	B		B	B	A	A	B	A	A	A
	RR-2											B	B		B	B	A	A	B	A	A	A
	RS-1											B	B		B	B	A	A	B	A	A	A
	RS-2											B	B		B	B	A	A	B	A	A	A
	RS-3											B	B		B	B	A	A	B	A	A	A
	RS-4											B	B		B	B	A	A	B	A	A	A
	RE											B	B		B	B	A	A	B	A	A	A
	RT											C	B		B	B	A	A	B	A	A	A
	RM												C		C	B	A	A	B	A	A	A
	RMH											C			C	B	A	A	B	A	A	A
	CD																			A	A	A
	CN																C	C		A	A	A
	CO																C	C		A	A	A
	CC																			A	A	A
	CR																			B	B	A
	P																B	B		A	A	A
	I-1																					B
I-2																					C	
I-3																						



8.2 Buffering Standards (cont.)

General Buffering Standards

1. Landscaping Required. A minimum of 50 landscaping points shall be provided within every 50 linear feet of buffer yard required. Any buffer yard segment of less than 50 feet shall be provided with plant material equal to 1.0 points for every linear foot of that segment. The required points value shall be met by providing landscaping consistent with the Landscaping Points Requirements Table (Table 8.1). At least 50% of the required points must be met with evergreen trees and shrubs.
 2. Landscape Placement: The required landscaping for Buffer Yard Type C may be located within the additional setback or anywhere within the adjacent required setback. However, where the buffer is adjacent to agricultural zoning districts the landscaping materials shall not be located within 10 feet of the property line to prevent interference with agricultural activities.
 3. Berms: A berm shall be permitted within the buffer, subject to the requirements of Section 8.2(F).
 4. Fences and Walls: Decorative fences or walls shall be permitted within a Type C buffer, subject to the construction requirements of Section 8.2(C)(2)(c); however, no fence or wall shall be counted towards meeting the buffer requirement. If utilized, fences or walls shall meet the maintenance requirements of Section 8.2(C)(4).
- F. **Berm Requirements**: A berm may be used with any buffer, provided the following requirements are met:
1. Height: Berms shall be a minimum of 3 feet in height with a maximum slope of 1:3.
 2. Topographical Changes: A difference in elevation between development areas which require a buffer shall not be considered a berm.
- G. **Other Use of Buffers Prohibited**: No proposed building addition, structure, outdoor storage, sales or display, parking area or any similar feature shall be located in front of or within a required buffer. A driveway entrance that complies with the requirements of Article 7 may cross a buffer; however, the width of the driveway may not be subtracted from the length of the buffer for the purpose of determining landscaping requirements.